



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,306	04/13/2005	Maurice John Adward White	2185400054-US1	6428
30678 7590 03/21/2008 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20036				
EXAMINER				
RAE, CHARLESWORTH E				
ART UNIT		PAPER NUMBER		
1611				
MAIL DATE		DELIVERY MODE		
03/21/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/531,306

Applicant(s)WHITE, MAURICE JOHN
ADWARD**Examiner**

CHARLESWORTH RAE

Art Unit

1611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4/13/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's application filed 4/13/05 is acknowledged.

Applicant's preliminary claim amendment filed 4/13/05 is also acknowledged.

Status of the Claims

Claims 1-11 are currently pending in this application.

Priority

Receipt of a certified copy of the foreign priority application, received 4/13/05, is acknowledged.

Objection to the Claims

Claims 2 and 7 are objected to for use of improper Markush claim language by reciting the term "selected from one or more" (see MPEP 2173.05(h)).

Applicant is required to correct this deficiency.

Claim rejections – 35 USC 112 – Second Paragraph

The following is a quotation of the second paragraph of 35 USC 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 5, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the term "a long bolus to remove materials in the deep cracks and fissure of the teeth". It is not clear what the term "materials" specifically refers to i.e. what materials are being removed. For instance, the term could be construed to have

Art Unit: 1614

different meanings .i.e. said term could refer to barrier materials, or thermoplastic materials, or some other materials.

Claim 5 recites the term "a chewing volume of 1 to 4 cm3 preferably about 3 cm3." The term "preferably" renders the claimed subject matter unclear as said term is construed to exemplify rather than establish specific metes and bounds of the claimed subject matter.

Claim 6 recites the term "formed form a foam" which renders the claimed subject indefinite as it is not clear what the term specifically means. It is suggested that this rejection may be overcome by amending the claim to delete the term "form" and replacing it with the term "from" provided the amendment is supported by the specification as originally filed.

Claim rejections – 35 USC 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1614

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11 are rejected under 103(a) as being unpatentable over White (WO 00/32135), in view of Brkovic et al. (US Patent 5,954,317).

White teaches a soft cellular foam chewable plastic fibre preferably of polyethylene, ethylvinylacetate or a mixture of both (page 4, line 26 to page 9, line 33). In a preferred embodiment, the fibre is derived from low density polyethylene foam and is about 0.5 to 1 mm up to 3 mm thick cut into strips of about 12 mm wide and 100 mm long (page 9, last two lines). The term "0.5 to 1 mm thick" is construed to be the functional equivalent of the diameter of the cellular foam, which overlaps with the term "about 1 mm in diameter" as recited in claim 1 and the term "at least 1 mm in diameter" as recited in claim 4. The term "a thermoplastic polymeric cellular foam having a total volume of 1 to 4 cubic centimeters" as recited in claim 1 and the term "thermoplastic cellular foam material is selected from one or more of polyethylene (PE), polyvinyl acetate (PVA) or polyisobutylene" as recited in claims 2 and 7 are construed to also overlap with the teachings of White (page 4, line 26 to page 9, line 33; and page 9, last two lines). White teaches a preferred embodiment wherein the chewable fibre dental foam includes a biologically acceptable binding agent such as polyisobutylene in an amount effective to provide limited surface tackiness (page 6, last line to page 7, first line). Claims 2 and 3 recite the term "polyisobutylene" as taught by White (page 6, last line to page 7, first line; and page 10, last line to page 11, line 2). The term "[a] dental care masticating strip" as recited in claim 1 is construed to overlap with the teaching of

Art Unit: 1614

White of a cellular foamed fibre which can be used to encapsulate dental aids, wherein the plastic cellular foamed fibre is able to remove food particles, plaque and sugars from the surface of teeth without damaging gums, absorb saliva and is subsequently able to release and direct the absorbed saliva controllably under chewing pressure to all tooth surfaces so as to neutralize acid and repair demineralised tooth surfaces, including inside pits and fissures; reference figure 1 discloses a strip of dental foam (see page 4, line 26 to page 6, line 17; and pages 12-13, Example 2, especially page 12, lines 25-56). Although White is silent regarding the following terms, these terms are construed to be coextensive characteristics of the claimed subject matter: the term "sized to give a chewing volume of 1 to 4 cubic centimeters preferably about 3 cubic centimeters" as recited in claim 5; the term "provides a short acting bolus to deliver the barrier material to deep cracks and fissures in the teeth as recited in claim 9, and the term "forms a long acting bolus to remove materials in the deep cracks and fissures of the teeth" are all construed to be coextensive characteristics of the claimed cellular foam strip (see WO 00/32135, page 9, last two lines, pages 12-13, Example 2, and Figures 1-4; and also see instant specification, page 3, lines 20-33, including the figures; and page 3, lines 21-33). The term "the strip is formed from [sic] a foam sheet by slitting diagonally across the thickness of the foam sheet" as recited in claim 6 is construed to be coextensive characteristic of the claimed subject matter as the process of making the cellular foam strip (i.e. slitting diagonally across the thickness of the foam sheet), is a necessary requisite to create the foam strip. Since it is the cellular foam strip that is being claimed, the term "the strip is formed from [sic] a foam sheet by slitting diagonally across the

Art Unit: 1614

thickness of the foam sheet" is required to be present. The term "provides a shirt acting bolus" as recited in claim 6 and the term "provides a long acting bolus" as recited in claim 9 are construed to be intended use limitations which are construed to be coextensive characteristics of the claimed subject matter as the claimed strip is construed to be capable of providing said long and/or short acting bolus. However, White is silent regarding the term "open cup shaped cells" as claimed in instant claims 1 and 3.

Brkovic et al. (US Patent 5,954,217) teach a laminated sheet having at least one of the outer surfaces has a layer of ethylene vinyl alcohol copolymer (col. 6, lines 27-34). Brkovic et al. teach that the laminated sheet is formed into a cup-like shape using the forward-end expansion method (col. 6, lines 43-49). Thus, the outside surface cells of said laminated ethylene vinyl alcohol copolymer (foam) sheet would reasonably be in the form of cup-like shaped cells.

Based on the teaching of Brkovic et al. of a laminated sheet containing ethylene vinyl alcohol copolymer prepared into cup-like shape, someone of skill in the art would have been motivated to combine the teachings of the above cited art to create the instant claimed inventive concept.

Thus, someone of skill in the art at the time the instant invention was made would have deemed it obvious to create the instant claimed invention with reasonable predictability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlesworth Rae whose telephone number is 571-272-

Art Unit: 1614

6029. The examiner can normally be reached between 9 a.m. to 5:30 p.m. Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

4 March 2008

/C. R./Examiner, Art Unit 1611

/Brian-Yong S Kwon/

Primary Examiner, Art Unit 1614